



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/635,235	08/09/2000	Minoru Noguchi	P107348-00032	5055

7590

07/05/2002

Arent Fox Kintner Plotkin & Kahn
Suite 600
1050 Connecticut Avenue N W
Washington, DC 20036-5339

EXAMINER

VIJAYAKUMAR, KALLAMBELLA M

ART UNIT

PAPER NUMBER

1751

DATE MAILED: 07/05/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/635,235

Applicant(s)

NOGUCHI ET AL.

Examiner

Kallambella Vijayakumar

Art Unit

1751

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2 and 3 is/are pending in the application.
- 4a) Of the above claim(s) 1, 4, 5 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 2 and 3 is/are rejected.
- 7) ☒ Claim(s) 3 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other: ____

DETAILED ACTION

Acknowledgment is made of applicant's claim for foreign priority based on applications filed in Japan with application number 11-226,717 on Aug. 10, 1999; 11-305,814 on Oct. 27, 1999, and 11-311,540 on Nov. 11, 1999. The receipt is acknowledged of a certified copies of the applications submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Applicant's election without traverse of Group-II, Claims 2-3 per amendment received on June 19, 2002 is acknowledged. These claims refer to Japanese Application Number 11-311540 Filed on Nov. 11, 1999. Claims 2-3 are currently pending.

*Claims 1, 4 and 5 are
Withdrawn from further consideration as being non-elected 37CFR
1.142(b)
The election requirement is made FINAL*

Applicant is reminded that upon the cancellation or withdrawal of any claims, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Art Unit: 1751

The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A (1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the examiner on form PTO-892 has cited the references, they have not been considered.

Claim Objections

Claim 3 is objected to because of the following informalities: There is spelling error, and it should read as "*meso-phase*" and not as "maso-phase". Appropriate correction is required.

Claim Rejections - 35 USC § 102 And/or Claim Rejections - 35 USC § 103

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 2-3 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Kampe et al (US Patent #4,602,426).

Kampe et al disclose a graded structure electrode comprising of an electrically conductive current collector, preferably a silver-plated nickel screen; activated carbon and precious metal doped carbon of 0.02-10 micron particle size as electrochemically active materials, a wet proofing agent such as PTFE powder of 0.1 to 10 micron size, and pore forming agent such as

Art Unit: 1751

sodium carbonate powder of 2-50 microns to create porosity. The active material coating on the current collector had a composition gradient through the thickness of the electrode, being present in the maximum amount on the surface of the electrode and a minimum on the opposite surface (Col-3, Lines 15-68). The current collector will be contiguously associated with at least one active mixture layer, The current collector should be at the surface in contact with the layer containing highest concentration of electrochemically active material (Col-4, Lines 18-20, 52-55), disclosing the benefits of such configuration of electrodes (Col-5, Lines: 3-10). The wet-proofing material, PTFE, a known binder could contain electrochemically active material (Col-5, Lines 65-66). The activated carbon and doped carbon meet the limitation of active and conductive materials of the instant claims. All the limitations of the instant claims by the applicants are met.

The reference is anticipatory.

In the alternative that the disclosure by Kampe et al be insufficient to arrive at the instant claims, it is in the purview of a skilled artisan to make minor obvious changes in the fabrication of the electrode and preparation parameters to arrive at the instant claims of the applicants.

The use of phrase “..for an electric double-layer capacitor,..” in the claims have not been treated with patentability. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

Art Unit: 1751

The examiner construes this language as “Intended Use” and not treated with merits for patentability.

Claims 2-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida et al (US patent #5,450,279) in view of Kampe et al (US Patent #4,602,426).

Yoshida et al disclose an electrode for the electrical double layer capacitor comprising of active carbon either in powder or fiber state, a binder such as cellulose derivatives or polymers to bond the activated carbon to the current collector made of aluminum, conductive agents such as carbon black added to the activated carbon for improving the conductivity.

Yoshida et al differ from the instant claims in that the gradient composition of the conductive layer is not disclosed.

Kampe et al are set forth as above on their disclosure of the electrode fabrication involving graded active component in the electrode.

A skilled artisan could take the Yoshida's disclosure on the electrode and combine with invention of Kampe et al to improve the performance and characteristics, make minor modifications to the composition and/or process and obviously arrive at the instant claims of the applicants.

Art Unit: 1751

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Yamamoto et al disclose the use of meso-phase carbon in fibers in the fabrication of double layer capacitor (EP Pub # 0927778A1).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kallambella Vijayakumar whose telephone number is 703-305-4931. The examiner can normally be reached on M-Th, 07:00 - 15.30 hrs, Fri: 05.30-14.00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Yogendra Gupta can be reached on 703-308-4708. The fax numbers for the organization where this application or proceeding is assigned are 703-305-3599 for regular communications and 703-305-3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

kmv
July 1, 2002


Mark Kopec
Primary Examiner